REMARKS

1. The Amendments and the Support Therefor

No claims have been canceled or added, and claims 15-18, 22, 23, 27, and 36 have been amended to leave claims 15-23, 27, 28, and 30-36 in the application. No new matter has been added by the amendments, which find support at FIGS. 1 and 5-7, and at par. [0052] of corresponding US Published Patent Appln. 2005/0178403.

2. Rejection of Claims 27 and 36 under 35 USC §112

The claims are amended to address these rejections.

3. Rejection of Claims 15 and 18 under 35 USC §102 in view of U.S. Patent 6,264,755 to *Georgiou*

Kindly reconsider and withdraw these rejections, since the design and subsequent functionality of the *Georgiou* device is significantly different from that of the claimed invention. *Georgiou* discloses a cleaner comb "similar to a human hair comb" (column 2 line 12). As such the prongs are "sized and spaced to fit between the rows of the hooks" (column 2 line 14). In order for the comb to effectively remove debris from the material, the prongs must be aligned between the rows of hooks, and slid horizontally therebetween, under the debris, to subsequently be lifted off in a vertical motion. *Georgiou* emphasizes that the alignment of the prongs must be between the rows of VELCRO (column 2 line 3). This is also further illustrated in Figure 1.

Contrary to *Georgiou*, the claimed invention is novel in that its particular shape and design differ from that of *Georgiou*, giving rise to a significantly different functionality / operation. Two rows of teeth, which are spaced apart from one another, enable the teeth to engage the hooks (rather than simply traveling between them) and alter their shape such that they are opened from their standard "hooked" configuration. The debris can then be dislodged from the hooks by a scooping or raking motion along the material. The first row of teeth may dislodge at least a portion of the debris, and any debris still embedded in the material will

subsequently be dislodged by the action of the subsequent row of teeth.

The close of the rejection alleges that the prongs of *Georgiou* are "wedge shaped," but this is not shown or mentioned in *Georgiou*, and is in error. There is no motivation for the prongs to be "wedge shaped," as the comb is designed to engage the area between the rows of hooks of the VELCRO, rather than the hooks themselves. As such, the prongs would be required to be fine and acute in shape (e.g., rod-like), as illustrated in Figure 1.

In summary, the width and spacing between the individual teeth, in both the outer and inner set of teeth, is novel in view of *Georgiou*, and provides the novel functionality of the claimed device as outlined above. The teeth are designed to engage and unfurl the hooks, and thus have a specific width and spaced arrangement as required to effect the removal of debris from the hook material. Since the claimed arrangement is novel in light of *Georgiou*, kindly withdraw the objections to Claims 15 and 18.

4. Rejection of Claims 16-17 and 19-21 under 35 USC §103(a) in view of U.S. Patent 6,264,755 to *Georgiou* and U.S. Patent 2,564,721 to *Raya*

Claims 16 and 17 are submitted to be unobvious, particularly in view of the amendments to parent claim 15, since the claimed invention has structure and function which are significantly different from the noted references. The *Georgiou* comb is intended to be used *between* the rows of hooks in VELCRO in order to dislodge debris, and is not designed to engage and/or unbend the hooks themselves. Therefore, the space between the prongs of the *Georgiou* comb is required to be larger than that of the claimed invention. It would not be obvious to simply decrease the width of the space between the prongs of the *Georgiou* comb since this adaptation is unnecessary for the intended function and purpose of the comb, and in fact would hinder *Georgiou*'s desired functionality by increasing "drag"(i.e., the difficulty in urging the *Georgiou* comb through the hooks), and would entangle the *Georgiou* comb with the hooks (which *Georgiou* seeks to avoid). Further, as the *Georgiou* comb is designed to be aligned between the rows of hooks and manipulated in a motion *perpendicular* to the VELCRO to remove the debris, a person skilled in the art would not contemplate adding an additional row

of teeth on the comb to arrive at the same solution: it is not seen how the second row of teeth would accommodate or allow the perpendicular sweep.

Regarding claims 19-21, the Office Action asserts that although *Georgiou* does not teach the use of wedge-shaped teeth inclined away from a leading edge, it would be obvious to do so in light of *Raya*. However, this is not so. *Raya* specifically discloses a cleaning device "adapted for use in cleaning various types of brushes" (column 1 line 2). The intended purpose of the cleaning device is to remove hair or debris from the bristles of a hairbrush. The slots of the cleaning device are "of a restricted width capable of receiving hairs but excluding the bristles of the brush" (column 1, 36). The purpose of this is to prevent damage to the bristles of the brush. This illustrates that the teeth are intended to move between the bristles rather than engaging the bristles, similarly to how *Georgiou*'s prongs are to move between stems/hooks without engaging the hooks. In contrast, the claimed device is designed to fully engage the hooks, an objective avoided by (and unobvious in view of) both *Georgiou* and *Raya*.

Further, contrary to the assertions of the Office Action, it would not be obvious to simply combine the teachings of *Georgiou* and *Raya* to achieve the same structure and results as the claimed invention. While *Raya* does disclose inclined teeth, there is no apparent reason to incorporate this feature within the device of *Georgiou* (which, again, is intended to be inserted perpendicularly to the stems, along the surface of the substrate from which the stems extend). Incorporating this feature into *Georgiou* would alter and compromise *Georgiou*'s function. Note particularly that in *Georgiou*, the prongs of the device are widely spaced apart to easily engage the surface between the hooks and then vertically lift the debris from the hook material. Conversely, *Raya* discloses that if "the teeth of a comb are comparatively wide, the hairs cannot be gripped therein to be withdrawn from the bristles" (column 1 line 16-20). Hence, the cleaning device disclosed by *Raya* has narrow comb slots, to grip the hair. The hair is then removed by a scraping motion, as opposed to lifting the debris from the brush. Since the intended function of each of the devices differ significantly, it is unlikely that an artisan would consider combining the references to arrive at the claimed invention. There is no motivation for the prongs disclosed by *Georgiou* to be inclined away from the leading edge, as in *Raya*, due to the fact that the

operation of the device in *Georgiou* seeks a horizontal engagement and vertical removal of debris from the material. Kindly withdraw the rejections of claims 16-17 and 19-21.

5. Rejection of Claims 22-23, 27-28, and 30-36 under 35 USC §103(a) in view of U.S. Patent 6,264,755 to *Georgiou*, U.S. Patent 1,600,368 to *Skoglund*, U.S. Patent 191,608 to *Miller*, and U.S. Patent 3,838,474 to *Erickson*

Regarding the allegation that it would be obvious to incorporate an additional set of teeth into a cleaning device, it is unclear how the Examiner has interpreted the teachings of *Skoglund* to be of particular significance in relation to the claimed invention. *Skoglund* discloses a brush that is flexible and foldable, subsequently protecting the bristles of the brush when it is not in use. Whilst there is no dispute that brushes are known to possess an array of bristles, the point we reiterate is that *Skoglund* discloses a general brush. This brush possesses bristles as opposed to teeth. There is no motivation for a person to consider the teachings of *Skoglund* and utilize an array of bristles in a device intended to be used specifically for the cleaning of a hook-type material. Bristles are unlikely to effectively engage the hooks in the material to dislodge and remove any debris. Moreover, the bristles are likely to simply traverse the top or surface of the hook material.

Similarly, the device disclosed in *Miller* is a curry-comb that is specifically designed to be used on horses. The comb possesses both rigid and flexible rows of teeth "for the purpose of stirring the hair of the horse on the forward and backward motions of the curry-comb" (column 2 line 10-14). This particular comb is designed for a specific purpose: to clean the coat of a horse. Curry-combs are known to possess an array of teeth and the manner in which the comb is used is specific to its purpose. The comb is meant to loosen any clumps of dirt and loose hair, as opposed to complete removal of debris from the horse's coat. For complete grooming and removal of debris, several subsequent brushes and combs must be used to groom a horse's coat. There is little motivation to utilize the array of teeth disclosed by *Miller* for the specific purpose of cleaning debris from a hook material. The teeth disclosed in *Miller* would not suitably engage the hooks, as the claimed invention does, in order to effectively to lift and

remove debris from the material.

The device disclosed by *Erickson*, while utilizing two parallel rows of bristles, is only suitable for the purposes of dislodging and ousting debris from carpet. When the device engages the carpet, the bristles loosen debris that may be embedded in the shag. However, the bristles are not capable of completely removing debris from the carpet. Much like the curry-comb disclosed by *Miller*, complete and effective removal of debris requires the use of further equipment. For example, *Erickson* discloses that "soil loosened by the bristles can be easily extracted with a vacuum cleaner" (column 1 line 12). In contrast, the claimed invention is designed to not only dislodge debris but effectively remove it as well. This is achieved by the two rows of teeth, which are designed and angled in such a manner to facilitate effective removal of debris.

Again, when *Georgiou*, *Skoglund*, *Miller* and *Erickson* are fairly considered, with the claimed invention placed out of mind (to avoid hindsight), it is seen that there would be no true motivation for a person to combine the teachings of these references to attain the claimed invention. Kindly withdraw the rejections to claims 22-23, 27-28 and 30-36.

6. In Closing

If any questions regarding the application arise, please contact the undersigned attorney. Telephone calls related to this application are welcomed and encouraged. The Commissioner is authorized to charge any fees or credit any overpayments relating to this application to deposit account number 18-2055.

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